

REMARKS

Claims 8 and 11 have been canceled. Claims 1-7, 9-10 and 12-18 remain pending in the present application. Applicant amends claims 1, 15, 16, and 18 for clarification and refers to page 20, lines 8-19 and 22-24 of the specification for an exemplary embodiment of and support for the amendments. No new matter has been added.

Claims 1-10, 12-14, and 16-18 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 6,201,810 to Masuda et al. in view of U.S. Patent No. 6,721,273 to Lyon et al. Applicant amends claims 1, 15, 16, and 18 in a good faith effort to further clarify the claimed invention as distinguished from the cited reference. The Examiner's rejection is respectfully traversed.

The Examiner acknowledged that Masuda et al. do not teach "monitoring a frequency of occurrence of the congested state," as recited in claim 1, but relied upon Lyon et al. as a combining reference for rejecting this claim feature. In particular, the Examiner relied upon Fig. 19 of Lyon et al., which includes an "update congestion counter" step 620 of an updating process 420'. This "update congestion counter" step 620 operates to update congestion counters 174 shown in Fig. 16 of Lyon et al. These counters 174 "are for monitoring traffic congestion at the output ports of the switch 10..." Col. 15, lines 59-61 of Lyon et al. (Emphasis added). And based on this count value, packets are discarded at the input port. Please see, e.g., the abstract of Lyon et al.

With respect to canceled claim 8, the Examiner relied upon col. 7, lines 4-9 of Masuda et al. as alleged disclosure of the features recited therein. The cited portions of Masuda et al. merely describe, however, path optimization based on the congestion status of adjacent areas that

only accounts for whether congestion is occurring at an output port of a link. Please see, e.g., col. 8, lines 8-15 of Masuda et al.

Even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Masuda et al. and Lyon et al., the combination would at most suggest a scheme for path optimization based on whether output ports are congested (Masuda et al.), and a traffic congestion counter for counting the congestion at the output ports in consideration for packet discard at the input ports (Lyon et al.). The combination would, therefore, still have failed to disclose or suggest,

“an input queue holding received packets until the packets are sent for a next process;
a congestion monitor unit monitoring the input queue and determining whether the communication device is congested;
a congestion information creating unit creating congestion information concerning a congested state of the communication device when the congestion monitor unit detects the congested state thereof, the congestion information being sent to other devices connected to the IP network; and
a unit for determining a route that can avoid congestion for an input packet based on a frequency of occurrence of congestion at a packet destination of the input packet,” as recited in claim 1.
(Emphasis added)

The claimed invention provides for reducing input port packet discards by monitoring congestion at an input queue and diverting packets to avoid congestion based on the frequency of congestion at the input queue.

Accordingly, Applicant respectfully submits that claim 1, together with claims 2-7, 9-10, and 12-14 dependent therefrom, is patentable over Masuda et al. and Lyon et al., separately and in combination, for at least the above-stated reasons. Claims 16 and 18 include features that correspond to those of claim 1 cited above, and are, therefore, together with claim 17 dependent from claim 16, patentable over the cited references for at least the same reasons.

Claim 15 stands rejected under 35 U.S.C. § 103 (a) as being unpatentable over Masuda et al. in view of Lyon et al., and further in view of U.S. Application Publication No. 2002/0133584 to Greuel et al. Applicant amends claim 15 in a good faith effort to further clarify the claimed invention as distinguished from the cited references. The Examiner's rejection is respectfully traversed.

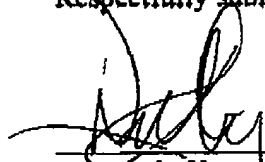
The Examiner relied upon Greuel et al. as a combining reference to specifically address the additional features recited in rejected claim 15. As such, the combination of this additional reference would not cure the above-described deficiencies of Masuda et al. and Lyon et al. with respect to claim 1 even if it would have been obvious to one skilled in the art to combine the references. Claim 15 includes features that correspond to those of claim 1 cited above. Applicant, therefore, respectfully submits that claim 15 is patentable over the cited references for at least the above-stated reasons with respect to claim 1.

The above statements on the disclosure in the cited references represent the present opinions of the undersigned attorney. The Examiner is respectfully requested to specifically indicate those portions of the respective reference that provide the basis for a view contrary to any of the above-stated opinions.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


Dexter T. Chang
Reg. No. 44,071

CUSTOMER NO.: 026304
Telephone No.: (212) 940-6384
Fax No.: (212) 940-8986/87
Docket No.: 100794-00132 (FUJI 18.872)
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